

AMENDMENTS TO THE CLAIMS

1-20. (Cancelled)

21. (Currently Amended) An automatic culture apparatus for culturing cells or a tissue comprising;

- a) a plural number of closed and aseptic inner spaces divided by a separator equipped with a practicable door for transferring ~~the~~a culture container,
- b) a gas incubator provided with a practicable window,
- c) a unit for supplying and discharging a liquid culture medium,
- d) a unit for monitoring ~~the~~ culture conditions,
- e) a transferring unit for continuously or intermittently transferring the culture container toward ~~these~~the above described units, ~~and~~
- f) a pressing unit for applying physical pressure to the culture by contact, and
- g) a unit~~unit~~ed for controlling at least one of the above-described units by an electrical signal depending on a data signal generated by the culture condition-monitoring unit.

22. (Previously Presented) The automatic culture apparatus according to Claim 21, wherein the apparatus has a setting unit for introducing a sterile gas into all portions or partial portions in the box of the culture apparatus.

23. (Previously Presented) The automatic culture apparatus according to Claim 22, wherein the sterile gas is an ozone gas.

24. (Previously Presented) The automatic culture apparatus according to Claim 21, wherein the apparatus has a pressure controller for allowing all portions or partial portions in the box of the culture apparatus to have a positive pressure higher than that of the outer space.

25. (Cancelled)

26. (Previously Presented) The automatic culture apparatus according to Claim 21, wherein a unit for washing cells or a tissue is provided and transferring of the culture container to this washing unit and movement thereof are controlled by the instruction controlling unit.

27. (Previously Presented) The automatic culture apparatus according to Claim 21, wherein a unit for adding a chemical is provided and transferring of the culture container to this chemical adding unit and movement thereof are controlled by the instruction controlling unit.

28. (Previously Presented) The automatic culture apparatus according to Claim 21, wherein a culture substance in the culture container is transferred into and out of the culture container while maintaining a blocking property against the outside space of the culture container.

29. (Previously Presented) The automatic culture apparatus according to Claim 21, wherein the apparatus has a vibration unit or a rotation unit for peeling a culture substance from the culture container.

30-31. (Cancelled)

32. (Currently Amended) The automatic culture apparatus according to Claim ~~21~~³⁴, wherein the ~~press~~ pressing unit is operated by magnetic force or mechanical force.

33. (Previously Presented) The automatic culture apparatus according to Claim 21, wherein the container filled with a liquid culture medium, washing liquid or chemical is not re-used.

34. (Previously Presented) The automatic culture apparatus according to Claim 21, wherein supplying of a liquid culture medium, washing liquid or chemical to the culture container is conducted via a sterilized syringe.

35. (Previously Presented) The automatic culture apparatus according to Claim 21, wherein supplying of a liquid culture medium, washing liquid or chemical to the culture container is conducted via a sterilized tube connected to the container for a liquid culture medium, washing liquid or chemical.

36. (Previously Presented) The automatic culture apparatus according to Claim 21, wherein the apparatus is equipped with a noninvasive measurement apparatus in which the amount and/or quality of cells or a tissue with a biological origin is analyzed and measured.

37. (Previously Presented) The automatic culture apparatus according to Claim 21, wherein the culture container is equipped with electrodes for measuring electric capacity, and a culture substance is placed between two or more electrodes for measuring electric capacity and the electric capacity of the culture substance is measured.

38. (Previously Presented) The automatic culture apparatus according to Claim 21, wherein the apparatus is equipped with a displacement meter provided with an XY scanning unit is placed at an upper position of the culture container, and said displacement meter has a function of analyzing a cell or tissue based on measurement of the thickness of a cell.

39. (Previously Presented) The automatic culture apparatus according to Claim 21, wherein the apparatus is equipped with a fluorometry unit provided with an XY scanning unit is placed at an upper position of the culture container.